



Presentation to the

# National Committee on Levee Safety

by

*Honorable R.D. James, Member, Mississippi River Commission*

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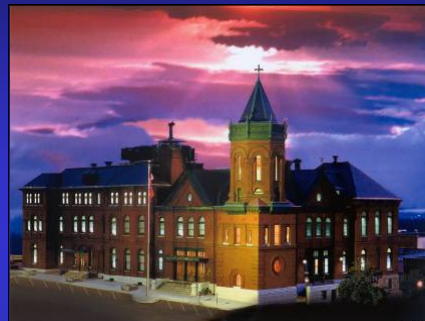
*Mr. Charles Camillo, Historian, Mississippi River Commission*

*Listening, Inspecting, Partnering, Engineering since 1879*



## Mississippi River Commission

- Presidential appointed commission; listening, inspecting, partnering, and engineering since 1879
- Seven members: 3 Corps Generals, 1 NOAA Admiral, 3 senior civilians (appointed by POTUS; confirmed by Senate)
- Oversees MR&T project – Corps Districts carry out the work
- Authority extends for entire river - headwaters to Head of Passes

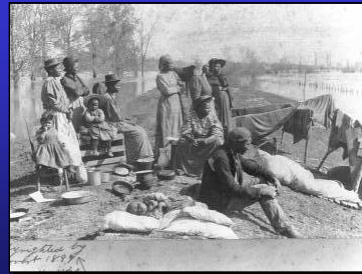
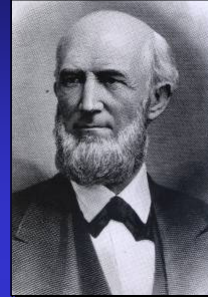


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## Why the MRC?

- Schism between military and civilian engineering communities
- Federalization of flood control
- Transcend regional entanglements



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## MRC Authorities 1879 Originating Act

*46<sup>th</sup> Cong., Sess. I. Ch 43.1879: An act to provide for the appoint of a Mississippi River Commission for the improvement of said river from the Head of Passes near its mouth to its headwaters.*

**Sec. 4. It shall be the duty of said commission to take into consideration and mature such plan or plans and estimates as will correct, permanently locate, and deepen the channel and protect the banks of the Mississippi River; improve and give safety and ease to the navigation thereof; prevent destructive floods; promote and facilitate commerce, trade, and the postal service...**

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- Direct surveys of the entire river: Head of Passes to headwaters near Lake Itasca, Minn.
- Additional topographical and hydrographical examinations of the entire river and its tributaries as necessary for general improvement of the river
- Request Secretary of Army to detail officers, men, vessels, machinery and instruments from the Corps of Engineers
- Request Secretary of Commerce to detail officers, men, vessels, machinery and instruments from NOAA
- Request Secretary of Army to hire workforce and purchase vessels, boats and instruments



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## 1928 Flood Control Act MR&T Authorization

**70<sup>th</sup> Congress, Sess. I. Ch. 569. 1928 Chap. 569-An Act for the control of floods on the Mississippi River and its tributaries, and for other purposes.**

... Sec. 8. The project herein authorized shall be prosecuted by the Mississippi River Commission under the direction of the Secretary of War and supervision of the Chief of Engineers and subject to the provisions of this Act. It shall perform such functions and through such agencies as they shall designate after consultation and discussion with the president of the commission. For all other purposes the existing laws governing the constitution and activities of the commission shall remain unchanged. The commission shall make inspection trips of such frequency and duration as will enable it to acquire first-hand information as to conditions and problems germane to the matter of flood control within the area of its jurisdiction; and on such trips of inspection ample opportunity for hearings and suggestions shall be afforded persons affected by or interested in such problems.

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## 1928 Flood Control Act

### *MRC Functions*

Designation of Functions and Agencies for the Execution of the Mississippi River Flood Control Project Adopted by the Act approved May 15, 1928.  
Memorandum Signed by Sec War and Chief of Engineers on Nov. 14, 1928

- Making the inspection trips & holding public hearings
- Recommend policy for the developing & carrying out the MR&T project
- Consideration & recommendation of the character of construction
- Recommend annual program of work
- Recommend upon any matters authorized by law.
- MRC pres and Engineer Districts of the Mississippi Valley designated as the agencies for carrying out the project.

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## Mississippi River & Tributaries Project

- \$13 B invested; \$306 B in damages prevent (\$24-\$1 return)
- Levees
  - 3,727 miles of levees authorized / 3,486 miles in place
  - Main stem levee system is 93.4% complete
  - Operated & maintained by local levee boards in coordination with MRC/MVD
- Levee Inspections
  - O&M – 5 days a week
  - Pasture Tenants -- 7 days a week
  - Stage 1 Flood fight – 5 days a week
  - Stage 2 Flood fight – 7 days a week
  - Bi-Annual MRC/MVD Inspections



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## Mississippi River & Tributaries Project

### Floodways

- 4 floodways to divert excess flows
- New Madrid (MO) operated in 1937
- West Atchafalaya never operated
- Morganza (LA) operated in 1973
- Bonnet Carré (LA) operated 9 times

### Tributary basin improvements

- Includes reservoirs, drainage structures, pumping plants

### Channel stabilization

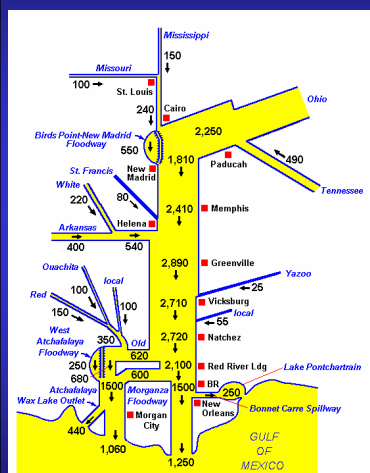
- Protects levee system from erosion



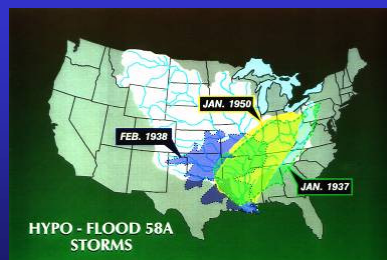
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## MR&T Project Flood



- Greatest flood with reasonable chance of occurring
- 25% greater than 1927 flood
- Developed in 1958 – storms of 1937, 1938, 1950
- Slightly adjusted following 1973 review
- No assigned frequency



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## MRC Structure



- Commission structure enables MRC:
  - To transcend regional entanglements
  - Greater civilian participation
  - Combine expertise of national assets

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## MRC Structure Corps of Engineers



U.S. Army Corps  
of Engineers ©



### Corps of Engineers Enablers

Representation & leadership from the nation's three largest watersheds:

- Mississippi River (MRC President)
- Missouri River
- Ohio River

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## MRC Structure

### Civilian Members

#### Civilian Member Enablers

- Membership continuity (only 29 civilians have served on MRC since 1879)
- Current members have combined 60 years on MRC
- Engineering & business expertise from the private sector (combined 150 years experience)
- Long-term relationships with legislators and partners



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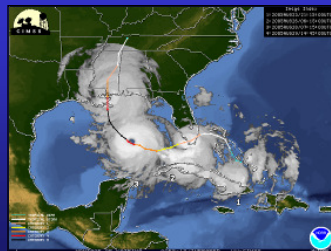
## MRC Structure

### National Oceanic & Atmospheric Administration



#### NOAA Enablers

- Representation from the science agency of the Department of Commerce
- Accurate weather and water cycle forecasts, (storms, droughts, and floods)
- Reliable scientific information to ensure safe, efficient, environmentally sound commercial transportation
- Scientific analysis of the changes in climate
- Objective ecosystem evaluation and information



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## MRC Process

- Listening to concerns of those managing the watershed
- Inspecting challenges posed by the watershed
- Partnering to form relationships to address challenges
- Engineering solutions to those challenges



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## Listening: MRC High/Low-Water

*2008 Inspection Schedule -- Public Meetings*



<u>High Water</u>	7 Apr	Tiptonville, TN
	8 Apr	Memphis, TN
	9 Apr	Lake Providence
	11 Apr	New Orleans, LA



<u>Low Water</u>	11 Aug	St Paul, MN
	13 Aug	Davenport, IA
	<b>14 Aug</b>	<b>Hannibal, MO</b>
	15 Aug	Alton, IL
	18 Aug	New Madrid, MO
	19 Aug	Memphis, TN
	20 Aug	Vicksburg, MS
	22 Aug	Houma, LA

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## Listening: MRC Low-Water

*Systemic Approach – Inspection Schedule*

### Low Water

Lower Mississippi + :

2005 - Ohio River Basin

2006 - Upper Miss

2007 - Missouri River Basin

2008 - Upper Miss (Comp Plan)

2009 – Arkansas River Basin

(Rep Boozman)

2010 – Illinois River Basin (Obama)

2011 – Red River Basin

(locks above Shreveport)



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## Listening: MRC Low-Water

*Systemic Approach – Inspection Schedule*



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## Process Impacts on Funding

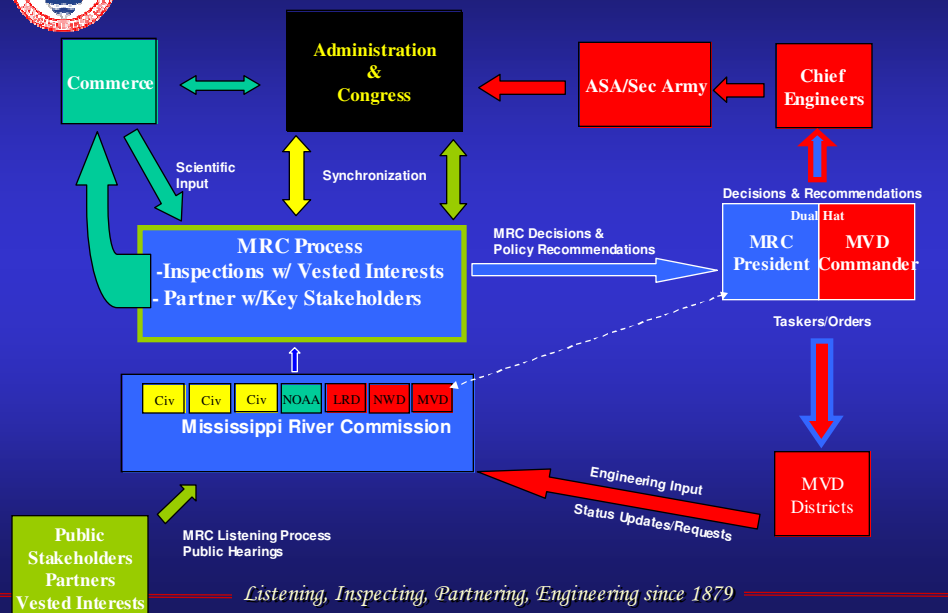
- Normal appropriations process
- Systems approach
  - Identify needs of comprehensive system
  - Educate & inform partners
- Synchronization
  - Major stakeholders
  - Associations
  - Legislators & Governors



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## MRC Process in Action





## MRC Process at Work (MR&T)

- MR&T project arguably most successful Civil Works project ever initiated:

- \$13 billion invested
- >\$300 billion return

- Why so successful?

- Listening
- Inspecting
- Partnering
- Engineering



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## MRC Process at Work (MR&T)

### *Competing Engineering Plans*

	<u>MRC</u>	<u>JADWIN</u>
Main Stem Levees (upper)	\$11m	\$0
Main Stem Levees (lower)	\$326m / 5 ft freeboard	\$132m / 1 ft
Tributary Levees	\$73m	\$0
Reservoirs	further study	no reservoirs
Boeuf Floodway	smaller / controlled	larger / fuse plugs
Atchafalaya Floodways	controlled/ Pointe Coupee protected	fuse plugs/ unprotected
Compensation to landowners	\$91m	\$26m
Total Costs	\$775m	\$296m

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## MRC Process at Work

### *Reality Facing the MRC*

- Prosecuting plan it did not submit, with no initiative control
- Public hearing process & inspection trips
- Lower Valley interests - landowners, levee boards, elected officials - despise Jadwin plan
- Same interests support more comprehensive MRC plan

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## MRC Process at Work (MR&T)

### *Results*

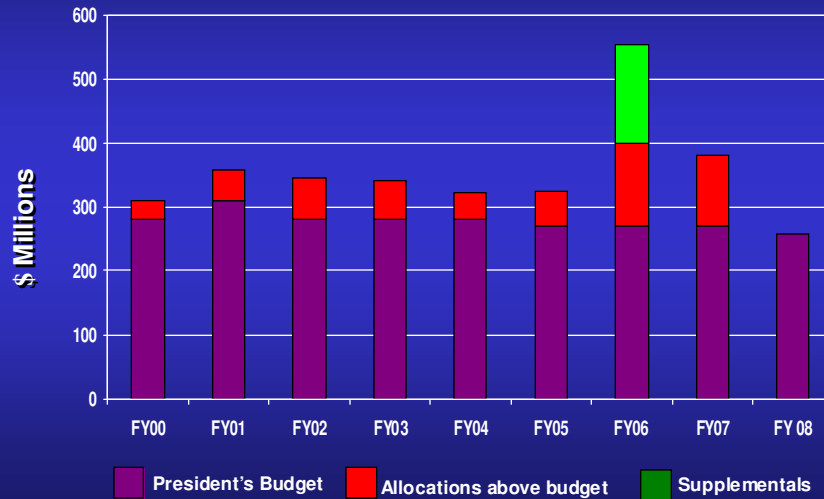
- 1932 Joint Resolution
  - Authorizes cutoff experiments to lower flood line
- 1936 Overton Act
  - Morganza Floodway; controlled, PC Parish protected, lessen west floodway
  - Yazoo & St. Francis headwater protection
  - Smaller LA/AR floodway
- 1936 Flood Control Act
  - Tributary reservoirs (non-MR&T)
- 1938 Flood Control Act
  - Increased compensation
- 1941 Flood Control Act
  - Elimination of Boeuf/Eudora floodway
  - Higher levees 1941 grade & section
  - Backwater protection



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## Mississippi River & Tributaries Funding Trends



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## Mississippi River Commission Conclusions

- Provides a connection between the public, a construction, operations and maintenance agency, and the executive branch and legislature
- Implementation oversight of a range of water resource activities
- An established record of expertise and accomplishment
- Clear charter that includes the entire watershed
- Has established relationships and processes to make recommendations to the Chief of Engineers, the Administration and inform Congress



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# Questions?

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